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ABSTRACT

This study reports on differences in children's interactional behaviors in traditional and nontraditional classrooms. The Differentiated Child Behavior Observational System which provides for systematic recording of group behavior in ongoing classroom activities, was applied in two days of observation in each of 17 classrooms (grades 1 to 3, ages 6 to 9). Two traditional (one middle-income and one low-income) and two nontraditional groups (one middle-income and one low-income) were compared. The nontraditional middle income classrooms were in private schools, the others in public schools. Significant differences were found in sheer amount of interaction, with significantly greater amounts in the two nontraditional groups. Although the general distribution of behavior among the six major categories (Gives Information; Questions; Expresses; Acts Destructively; Organizes; Represents) showed similiar patterns, important qualitative differences were shown in finer-grained analysis of the 50 sub-categories. There were significantly more higher-level cognitive statements and questions by children in the Nontraditional groups. Expressive interactions, primarily limited to routine requests and complaints in the Traditional groups, represented a greater proportion of feelings and concern for others in the Nontraditional groups. The latter also had more autonomous and creative representational interactions and far less destructive behavior. Also reported are correlations with teacher behavior, reliability of DCB and intra-group differences. (Author/MS)

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Children's Interactions in Open Versus Traditional Settings*

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This paper will provide a brief overview of a study of children's group interaction in the classroom.

This study sought to determine how the differences between Traditional and Nontraditional settings are reflected in the children's interactional behaviors. What is the effect of informal spatial arrangements and greater teacher and pupil mobility on the quality of classroom interactions? Does an "open" independence-fostering, child-centered environment, that seeks to encourage self-expression, produce a greater incidence of destructive, acting-out behavior than the Traditional setting which has a high degree of control as one of its major practices? Does the attempt to integrate and balance cognitive, affective, aesthetic, and social learning experiences result in fewer cognitive interactions than are found in traditional settings where academic learning is the primary objective?

The study also sought to determine the extent to which the socioeconomic status and ethnicity of a school population affect the quantity and quality of classroom interactions. How does the behavior of inner-city children in the open classroom differ from their behavior in a traditional setting? How does the behavior of the low-income child differ from that of the middle-class child in either setting?

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The observation system used in this study is the Differentiated Child Behavior Observation System (DCB).* It was originally developed as one of a number of measures designed to record and evaluate the progress of the Bank Street College Follow Through Program. This program involves the application and implementation in inner-city public schools of a Nontraditional progressive educational approach developed and applied over many decades in the laboratory school of the Bank Street College of Education.

Conventional methods of educational evaluation do not adequately measure the forms of learning and growth with which the Bank Street approach is centrally concerned. It seeks to produce an emotional commitment to learning, to have the child experience meaning in what he is learning and build upon his own experience in organizing and assimilating new knowledge. Interaction is seen as fundamental to this approach: child-teacher, child-child, child-environment, as well as the interaction of cognitive and affective developmental processes central to all learning. It is not exclusively concerned with the acquisition of narrowly defined skills and its educational goals are defined in humanistic developmental-psychological terms. Neither the content nor the method of achievement testing is suitable for evaluating its impact.

Many educators and parents have questioned the usefulness of Nontraditional approaches in public school classrooms with children of low income-families. Those who seek to improve the education of these children are confronted with the need to answer fundamental questions regarding the ways in which the children's experiences differ in Traditional and Nontraditional settings.

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*The DCB was developed by Sylvia Ross in 1971. Elizabeth Gilkeson, Director of the Bank Street Follow Through Program, contributed significantly to the formative stages of its development as did Herbert Zimiles, who acted as consultant in the initial studies.

The observation system used in this study is designed to encompass the variety of classroom interactions that characterize both informal and traditional classrooms. Its basic assumption is that the children's behavior (both verbal and nonverbal) reflects the attitudes, values, and curriculum emphases of the classroom teacher. The two instruments comprising this system are the DCB Form and the Classroom Scan. The DCB Form provides a system for recording 12 five-minute observations of group behavior in ongoing activities, both with and without adult intervention. It differentiates among various forms of interaction, i.e., child-child, child-adult, or child to or by self; adult-elicited or child-initiated; individual or choral response. Its primary focus, however, is on the substantive aspects of children's interaction whether verbal or nonverbal. The six major categories of the DCB are: Gives Information, Asks Questions (with both categories representing the cognitive domain), Expresses, Acts Destructively, Organizes and Manages, and Represents and Symbolizes. Each of the six categories includes from 7 to 10 subcategories that are designed to identify specific behaviors within each general category ranging from routine or rote responses to more complex acts.

The Classroom Scan provides a comprehensive view of all ongoing activities and groupings during each of six time samples during the day. It characterizes each child's experience in terms of perceptual mode(s), dimensionality of materials, and categorizes the teacher's role.

Previous work with the DCB had been largely restricted to the examination of differences between Bank Street-sponsored Follow Through Classrooms and suitable control groups. The results of these studies consistently indicated sizable group differences in a number of variables (Ross and Zimiles, 1974). The purpose of the present study was to examine the applicability of this method to a wider array of classrooms and to gather more explicit data relating

to the reliability and construct validity of this method prior to its dissemination.

The design of the study provided for the comparison of four groups, two traditional and two nontraditional in educational approach. These consisted of a total of 17 classrooms in Grades 1, 2, and 3 with children aged six through nine from either middle- or low-income families.

The largest of the four groups was the Open Lower group. It consisted of nine classrooms in public schools which were participating in an intensive training program to implement open education. The children in these classrooms were predominantly of low-income families and members of minority groups. The counterpart to these classes in traditional education was made up of four public school classes, with children of comparable backgrounds, in which the prevailing mode of education was "Traditional." The remaining four classes in the sample were in schools with children who were predominantly of middle-income families. The two Nontraditional classrooms, termed Developmental Middle, were in two private schools whose form of education has been variously termed "progressive," "modern" and, more recently, "developmental-interaction" (Shapiro and Biber, 1972). The two Traditional Middle classrooms were obtained from a public school in an affluent neighborhood.

The results of a comparative study of these four groups are based on the totals of two days of DCB recording in each classroom. In every case, the two days of observation were conducted by two different observers.

The findings relating to the children's interaction in the contrasting educational settings serve to identify both commonalities and striking differences. At the most basic level are the huge differences found among the groups in the total amount of interaction recorded. The Developmental Middle and Open Lower groups totaled substantially greater numbers of interactions than

the Traditional groups, with the highest score (Developmental Middle) more than three times that of the two Traditional public school groups.

On the other hand, the general distribution of behaviors among the six major categories of the DCB is surprisingly similar in all four groups with the percent scores falling within a relatively narrow range. Approximately 40% of children's interactions entailed Information Giving, from 6% to 9% involved Questioning behavior, and 29% to 31% were forms of Expresses. Destructive behavior accounted for only .1% to 3% of total interactions, and Organizing and Managing behaviors from 3% to 6%. Represents and Symbolizes included scores ranging from 15% to 21%. Thus, an overall pattern representing the general content of children's classroom interaction has emerged.

However, when the content of the interactions is more closely analyzed, important qualitative differences among the four groups are seen. A much larger proportion of all Gives Information interactions was concerned with rote and routine behaviors in the classrooms of the Traditional groups than of the Nontraditional groups. In both Nontraditional groups, most of the cognitive statements were distributed among subcategories representing higher-level behaviors. The proportion of Questioning behavior that dealt with routine inquiries was highest in the Traditional Lower group and lowest in the Developmental Middle group. More than half the questions asked by the Developmental Middle group were categorized as higher level. The Traditional groups' expressive interactions more often involved expressions of needs (social, physical and task-related), whereas the Nontraditional groups had a greater proportion of expressions of preferences, of feelings and attitudes, and of concern for others. The largest difference in subcategory patterns occurred in relation to the category concerned with Representational and Symbolic behavior. Virtually all of the interactions of the two Traditional groups were limited to reading-drill activities, while the bulk of

these behaviors in the Developmental Middle group and a sizable proportion of those of the Open Lower groups included forms of dramatic and creative expression and a much wider variety of experiences involving symbolization.

These group differences are magnified when the source and direction of interactions are examined. The single greatest difference found among the groups is the degree to which the interactions were spontaneously initiated by the children rather than elicited by adults. When the analysis is limited to communications elicited by adults, the amount of interaction recorded in the four groups is not very different. However, when child-initiated interactions are compared, enormous differences are found among the groups. By an overwhelming margin, the Nontraditional groups, particularly the Developmental Middle group, exceed the Traditional groups in frequency of Child-Initiated as well as To-Child interactions. Moreover, the large number of Child-Initiated interactions found among the Nontraditional groups entail Information Giving and Questioning behaviors which are primarily concerned with higher-level cognitive interactions. These behaviors account for the bulk of the differences among the groups.

The Developmental Middle group showed a number of unique characteristics. This was the only group that totalled substantial amounts of causal reasoning and problem-solving behaviors. The type of questions asked were more diverse and involved higher-level subcategories far more often. Despite the fact that this group had the greatest amount of interaction, it had fewest instances of destructive behaviors, by far (.1%).

The results reported on thus far reveal important qualitative differences in the character of children's group interaction despite the overall similarity in gross distribution of behaviors. In addition, further differences among groups relating to the variety and nature of the activities in each type of classroom setting were revealed.

Classrooms in the Nontraditional groups provided for a greater variety of experiences with many opportunities for work with concrete materials and live phenomena. The Traditional classrooms were for the most part limited to work with two-dimensional materials. Differences were also shown between the two Nontraditional groups: a greater proportion of activities in the Developmental Middle group involved the use of all the perceptual modes including smelling and tasting; there was a far greater variety of experiences with more opportunity for expression in free representational modes.

The role of the adult also distinguished among the four groups with more Adult-Supported and fewer Adult-Directed activities in the Nontraditional groups. In the Developmental Middle group, the adult role was more equally distributed among Directing, Supporting, and No Adult situations. Both the Open Lower and Traditional Lower groups had greater instances of No Adult situations than did the Developmental Middle and Traditional Middle groups.

These tendencies appear to epitomize some of the differences among the four groups in regard to educational setting. Both quantitative and qualitative differences in children's group interactions are associated with specific characteristics of the learning opportunities provided in the classroom and with the role of the adult.

The DCB subcategory discriminations of interaction in these contrasting educational settings emphasize differences that relate to the cognitive as well as the social-emotional functioning of children. Unlike what might have been expected in a comparison of Nontraditional and Traditional classrooms, the main differences are not in the amount of expressive behavior but in the amount of higher-level forms of cognitive behaviors and the degree to which symbolic and representational behavior is limited to decoding exercises associated with formal reading instruction.

The assessment of reliability--which is not included in this brief report--demonstrates that errors of measurement are not so great as to obscure the major differences in interaction among the sample groups. The data obtained from an independent assessment of teaching behavior--also not reported here--were found to be closely related to the DCB measurement of classroom interaction.

The implications of these findings are particularly relevant to current issues. Although open education approaches have only recently been applied in public schools in the United States, they have been subjected to severe criticism and challenge.[1] Yet there is not only a paucity of research on the relative efficacy of open education, there is also an appalling lack of definition and differentiation in the criticisms of open education programs.

These programs vary widely. Nontraditional approaches are acknowledged to be more complex, incorporating subtle and long-range goals. Effective teaching in the Nontraditional classrooms requires that the teacher possess not only skills and abilities, but also a set of values that are quite different from those associated with traditional education. Yet open approaches have often been introduced in schools with little or no staff preparation, and applied widely in settings which lack appropriate supervisory and staff development programs, and in which the teacher's values may be at odds with those of the educational approach. It is particularly important that evaluation of the effectiveness of the open education approach be considered within the framework of the quality of implementation of each program being assessed.

The findings of the study regarding the effect of the Developmental-Interaction and Open Education approaches on children's functioning provide us with a set of reference points which may aid in the effort to assess new programs. The need for further research in this area is self-evident.

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1. See "Back to Basics Movement" as reported on in the New York Times, May 20, 1975.

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